



How to Reduce MacBook Pro Core Temperature

If your MacBook Pro is running hot it is possible to cool it off by thermally bonding the heatsinks to the case. It'll be hotter on your lap but can reduce CPU and GPU core temperatures by over 10°C!

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INTRODUCTION

If you're willing to dig deep in your MacBook Pro and add some stuff that was never meant to be there you could effectively reduce it's core temperature by over 10°C.

This could be particularly beneficial if your MacBook overheats and should be accompanied (if not already done) by a thermal paste change.

The downside: It's a bodge. But it does seem to work.



TOOLS:

- [T6 Torx Screwdriver](#) (1)
- [Small Phillips Head Screwdriver](#) (1)
- [Spudger](#) (1)
- [Utility Scissors](#) (1)



PARTS:

- [Thermal Pad \(2mm thick\)](#) (1)

Step 1 — Dissassembly

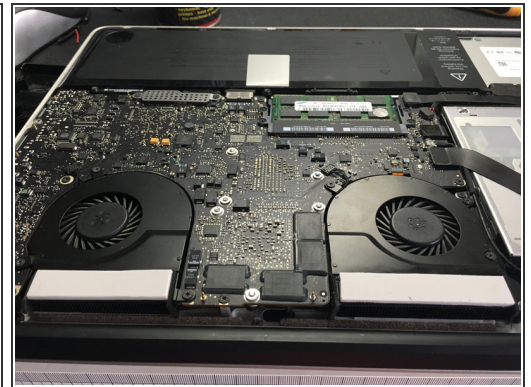
Step 1 MacBook Pro 15" Unibody Mid 2010 Teardown



- Apple's need for faster and better performance has led it to incorporate Core i5 in the latest lineup of MacBook Pros
- Our new MacBook Pro's specifications
 - 2.4 GHz Intel Core i5 with 3 MB L3 cache
 - 4 GB of 1066 MHz DDR3 SDRAM
 - 15.4 inch LED-backlit glossy display
 - Intel HD Graphics and NVIDIA GeForce 330M with 256 MB of GDDR5

- First off you'll need to locate a disassembly guide for your machine and follow it carefully to remove the logic board.
- If you haven't already, this would be a good opportunity to follow a guide for replacing the thermal paste.

Step 2 — Thermally bonding the heatsinks



- The aim here is to sandwich thick thermal pads under your MacBook's heatsinks to contact the upper case, and atop them to contact the bottom cover. This will help conduct heat away from the machine by effectively making the entire unibody one big heatsink.
- On my machine, a mid-2010 15 inch MBP, I needed to use three strips of a 2mm thick thermal pad under the centre heatsink, two strips under the side one and one strip atop each to make contact with the bottom cover.
- Try to use enough layers that the heatsinks are in good contact, but not so many that anything needs to bend to fit back.

Now reassemble your MacBook by following the disassembly guide in reverse-order. Always monitor your system's temperatures before running any heavy applications just in case something went wrong.

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